

# Milwaukee County Office of Emergency Management-EMS Division (OEM-EMS)

General Medicine:
HYPOGLYCEMIA / HYPERGLYCEMIA
Medical Protocol

### Patient Care Goals

Limit morbidity from hypoglycemia and hyperglycemia by:

- 1. Describing appropriate use of glucose monitoring
- 2. Treating symptomatic hypoglycemia
- 3. Appropriate hydration for hyperglycemia

### **Patient Presentation:**

#### Inclusion Criteria

- 1. Adult or pediatric patient with blood glucose < 60 mg/dL with symptoms of hypoglycemia; infants < 40 mg/dL with symptoms of hypoglycemia
- 2. Adult or pediatric patient with altered level of consciousness
- 3. Adult or pediatric patient with stroke symptoms
- 4. Adult or pediatric patient with seizure
- Adult or pediatric patient with symptoms of DKA\* (dehydration, polyuria, polydipsia, nausea/vomiting, abdominal pain, weakness, dyspnea, dizziness, confusion, fruity-scented breath)
- 6. Adult or pediatric patient with history of diabetes and other medical symptoms
- 7. Patients with suspected alcohol ingestion

## Medications:

#### Oral Glucose:

Adult Dosing: 15 gm q 5 mins x 3 PRN if symptomatic Pediatric Dosing: 1 gm/kg (max of 15 gm/dose) q 5 mins x 3 PRN if symptomatic

## <u>Dextrose IV</u>

Adult Dosing: 100 mL 10% dextrose IV Pediatric Dosing: 4 mL/kg of 10% dextrose IV (max 100 mL)

Dextrose may be repeated if patient remains symptomatically hypoglycemic PRN

## Glucagon IM/IN

Adult and Pediatric Dosing: 1 mg IM/IN Pediatric Dosing <20 kg: 0.5 mg IM/IN

## Normal Saline Bolus

Glucose > 400 mg/dL with symptoms of DKA. Repeat PRN until symptom improvement, 3 boluses, or signs of heart failure/shortness of breath.

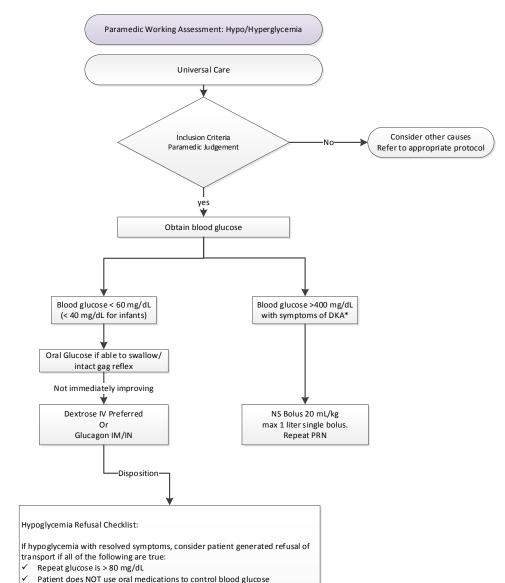
## Quality Improvement:

Key Documentation Elements

- 1. Glucose measurements
- 2. Response to interventions
- 3. Hypoglycemia refusal for transport elements documented

## **Patient Safety Considerations**

Patient refusals are high risk situations; use checklist. Routine use of lights and sirens is not recommended during transport unless severe or refractory to EMS interventions.



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Patient returns to normal mental status, with no focal neurologic signs

No major co-morbid symptoms exist, like chest pain, shortness of breath,

Patient or legal guardian refuses transport and all parties demonstrate

Patient can promptly eat a carbohydrate meal in front of EMS

symptoms after receiving glucose/dextrose

A reliable adult will be staying with patient

capacity for decision-making

seizures, intoxication, or naloxone administered

Pg 1 of 1